

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022076**Date Inspected:** 31-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Qiu Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 13AW

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3013AA-015 [Edge Plate (EP) 3020A to Floor Beam (FB) 3178A, CJP weld at panel point (PP) 118]. The welder is identified as 045240 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Liu Fang. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3013D-235 [K Plate (KP) 3015A to Floor Beam (FB) 3194A, CJP weld at panel point (PP) 119.65]. The welder is identified as 069841 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Liu Fang. The welding variables recorded by QC appeared to comply with WPS: B-P-2213-Tc-U4b-FCM-1.

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OBG Seg 13BW

Repair welding of weld joint no: SEG3014E-101 [Stiffener of Side Plate (SP) 3095A to Floor Beam (FB) 3216A, complete joint penetration (CJP) weld at panel point (PP) 121.5]. The welder is identified as 067829 and was observed welding in the 4G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by this QC appeared to comply with Welding Procedure Specification (WPS): 345-SMAW-4G(4F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 18318 Rev-0.

Repair welding of weld joint no: SEG3014C-070 [Stiffener of Bottom Plate (BP) 3057A to Floor Beam (FB) 3219A, complete joint penetration (CJP) weld at panel point (PP) 122]. The welder is identified as 045204 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by this QC appeared to comply with Welding Procedure Specification (WPS): 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 18318 Rev-0.

OBG Seg 13CW

Repair welding of weld joint no: SEG3015J-101 [Stiffener of Side Plate (SP) 3097A to Floor Beam (FB) 3226A, complete joint penetration (CJP) weld at panel point (PP) 123]. The welder is identified as 068917 and was observed welding in the 4G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by this QC appeared to comply with Welding Procedure Specification (WPS): 345-SMAW-4G(4F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 18318 Rev-0.

Repair welding of weld joint no: SEG3015E-070 [Stiffener of Bottom Plate (BP) 3064A to Floor Beam (FB) 3232A, complete joint penetration (CJP) weld at panel point (PP) 124]. The welder is identified as 067993 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by this QC appeared to comply with Welding Procedure Specification (WPS): 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 18318 Rev-0.

OBG Segment 14W

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020D-052 [Floor Beam (FB) 3343A to Bottom Plate (BP) 3092A, CJP weld at panel point (PP) 128.3]. The welder is identified as 202122 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020W-179 [Stiffener of Floor Beam (FB) 3316A to Longitudinal Diaphragm (LD) 3048A, CJP weld at panel point (PP) 125]. The welder is identified as 047864 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2211-Tc-U4b-FCM-1.

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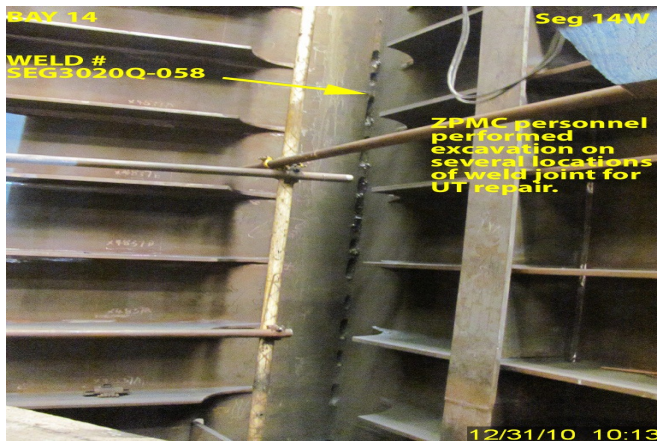
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The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020E-056 [Floor Beam (FB) 3343A to Bottom Plate (BP) 3093A, CJP weld at panel point (PP) 128.3]. The welder is identified as 047866 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020L-173 [Stiffener of Floor Beam (FB) 3327A to Longitudinal Diaphragm (LD) 3049A, CJP weld at panel point (PP) 127]. The welder is identified as 066038 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2211-Tc-U4b-FCM-1.

During random in process inspection this QA inspector observed that ZPMC personnel performed excavation on 17 different locations on the weld joint SEG3020Q-058 joining Floor Beam (FB) 3320a to Longitudinal Diaphragm (LD) 3049 at Panel point (PP) 126. This weld joint was rejected and marked on several locations by ZPMC NDT personnel during Ultrasonic Testing (UT). Attached photograph provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
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Reviewed By:	Patterson,Rodney	QA Reviewer
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